

**510(k) Premarket Notification**  
**Spacelabs Medical, Inc.**  
**Multigas Analyzer Module 91518 and Accessories**  
**Summary of Safety and Effectiveness**

APR 19 2006

- Device Description: The Spacelabs Medical Multigas Analyzer Module 91518 (Module 91518) is an easy-to-use modular unit in the Spacelabs Medical product family. The Module 91518 is a multigas sidestream analyzer intended to provide a measurement of the following parameters:
- CO<sub>2</sub> produced by the patient;
  - O<sub>2</sub> and N<sub>2</sub>O administered to the patient;
  - Anesthetic agents administered to the patient which includes:
    - Desflurane;
    - Enflurane;
    - Halothane;
    - Isoflurane; and
    - Sevoflurane.
  - Respiratory rate of the patient; and
  - Calculated MAC and age-dependent MAC values.
- The Module 91518 automatically identifies which anesthetic agent or mixture of anesthetic agents is present, and measures the concentration of the identified agent(s). An alarm is issued if a mixture of more than two anesthetic agents is detected.
- The Module 91518 interfaces with all Spacelabs Medical monitors, except the SLP100. The monitor provides a numeric display for the gas concentrations and respiratory rate, and a waveform display for O<sub>2</sub> and CO<sub>2</sub>. The Module 91518 is intended to be used for monitoring all hospitalized patients under the direction of qualified medical personnel.
- Intended Use: The Spacelabs Medical Multigas Analyzer Module 91518 (Module 91518) is intended to provide a means of monitoring a variety of gas concentrations and to alert clinical personnel when the concentration of anesthetic agent, oxygen, carbon dioxide or nitrous oxide falls outside of user defined limits. The Module 91518 is capable of automatically identifying which anesthetic agent(s) is being administered.
- The Module 91518 is intended to be used with, and is controlled by, all Spacelabs Medical monitors, except the SLP100.
- The Module 91518 is intended for use monitoring all hospitalized patients under the direction of qualified medical personnel.
- Although the Module 91518 alarms when the duration between breaths exceeds user defined limits, it is not intended to be a primary diagnostic apnea monitor and/or recording device.

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Test Discussion:	<p>The Module 91518 is substantially equivalent in design concepts, technologies and materials to the combination of the Spacelabs Medical Module 90518 (K954962) and the Date-Ohmeda Compact Airway Module E-CAiOVX (K051092). The Module 91518 was validated through rigorous testing that, in part, support the compliance of the Module 91518 to the Standards mentioned in Section 6.1 of this submission. Additionally, the software for the Module 91518 was developed following a robust software development process and was fully specified and validated.</p> <p>The Module 91518 is the next generation in the Spacelabs Medical Integrated Multiparameter Module family of products for the Spacelabs line of patient monitors.</p>
Test Conclusion:	<p>The Module 91518 is substantially equivalent to its predicate devices in design concepts, technologies and materials.</p>



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

APR 19 2006

Mr. Al Van Houdt  
Director, Regulatory Affairs and Quality  
Spacelabs Medical, Incorporated  
5150 220<sup>th</sup> Avenue SE  
P.O. Box 7018  
Issaquah, Washington 98027-7018

Re: K053599

Trade/Device Name: Spacelabs Medical Multigas Analyzer Module 91518 and  
Accessories

Regulation Number: 868.1700

Regulation Name: Nitrous Oxide Gas Analyzer

Regulatory Class: II

Product Code: CBR

Dated: April 4, 2006

Received: April 5, 2006

Dear Mr. Houdt:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act): 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Chiu Lin, Ph.D.", written in a cursive style.

Chiu Lin, Ph.D.

Director

Division of Anesthesiology, General Hospital,

Infection Control and Dental Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): K053599

Device Name: Spacelabs Medical Multigas Analyzer Module 91518 and Accessories

Indications for Use: The Spacelabs Medical Multigas Analyzer Module 91518 (Module 91518) is intended to provide a means of monitoring a variety of gas concentrations and to alert clinical personnel when the concentration of anesthetic agent, oxygen, carbon dioxide or nitrous oxide falls outside of user defined limits. The Module 91518 is capable of automatically identifying which anesthetic agent(s) is being administered.

The Module 91518 is intended to be used with, and is controlled by, any Spacelabs Medical monitor, except the SLP100.

The Module 91518 is intended for use monitoring all hospitalized patients under the direction of qualified medical personnel.

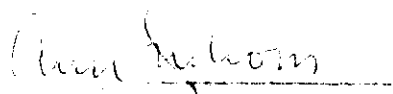
Although the Module 91518 alarms when the duration between breaths exceeds user defined limits, it is not intended to be a primary diagnostic apnea monitor and/or recording device.

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
\_\_\_\_\_  
Gen. General Hospital  
K053599